

REMARKS

Applicants will address each of the Examiner's rejections in the order in which they appear in the Office Action.

Claim Rejections – 35 USC §103

Claims 5-12 and 15-18

In the Office Action, the Examiner rejects Claims 5-8, 15 and 16 under 35 USC §103(a) as being unpatentable over O'Brien et al or Baldo et al., either reference in view of Salbeck et al. and Gushin et al. (US 2002/0121638). Applicants respectfully traverse this rejection.

In particular, the Examiner appears to be contending that O'Brien or Baldo discloses all the claimed features except spiro-CBP, spiro-NPD, spiro-TAZ or spiro-PBD. The Examiner appears to be relying upon Salbeck for curing the deficiency of O'Brien or Baldo, since the Examiner contends that Salbeck discloses using compounds having a spiro-linkage. Further, the Examiner appears to be relying upon Gushin for curing the deficiency of O'Brien or Baldo in view of Salbeck, since the Examiner contends that Gushin discloses TAZ and PBD.

Applicants respectfully disagree and submit that there is no disclosure or suggestion in the cited references of the specific combination of the claimed invention and the resulting advantages achieved by this specific combination.

More specifically, the present invention is directed to a light emitting device having an organic electroluminescent (EL) element. The present application discloses an organic EL element capable of converting triplet excitation energy into light to be emitted. The organic EL element comprises a hole transport layer comprising spiro-NPD(NPB), a host material

comprising spiro-CBP and a hole blocking layer comprising spiro-TAZ or spiro-PBD. The present application further discloses:

“In an organic EL element in which high light emission efficiency is obtained by converting triplet excitation energy into light to be emitted, a spiro compound having a higher heat resistance than a conventionally used material or an organic compound having high molecular stability is applied and an organic EL element which is light and has low consumption power and superior durability (increase an element life) is obtained”
(abstract; emphasis added).

The EL element of the present invention having superior durability can be obtained by a combination of spiro-NPD(NPB), spiro-CBP and spiro-TAZ or spiro-PBD. Through this combination, problems such as those discussed on page 7, line 19-page 8, line 15 of the present application can be solved.

In contrast, Salbeck fails to disclose or suggest the combination of spiro-NPD(NPB), spiro-CBP and spiro-TAZ or spiro-PBD, or a combination of a hole transporting layer including a spiro compound, a host material including a spiro compound in an organic luminescent layer, and a hole blocking layer including a spiro compound. Further, Salbeck fails to disclose or suggest a combination of a hole transporting layer, an organic luminescent layer and a hole blocking layer, and fails to disclose or suggest that spiro-CBP can be used together with a luminescent material comprising a metal complex and used as a host material.

Therefore, there is no disclosure or suggestion in the cited references of the specific combination of Claims 5-8, 15 and 16.

Further, the structure of Salbeck is significantly different from that of the claim invention and O'Brien or Baldo. As a result, one skilled in the art would not combine Salbeck with O'Brien or Baldo to arrive at the claimed invention, and the combination of references is improper.

Further, the Examiner assumes that one skilled in the art would have knowledge of Salbeck but provides no explanation why one skilled in the art would know of this reference. Instead, this reference appears to be the result of improper hindsight reconstruction.

Accordingly, it is respectfully submitted that Claims 5-8, 15 and 16 are patentable over Salbeck, and it is respectfully requested that this rejection be withdrawn.

Claims 9-12, 17 and 18

The Examiner also rejects Claims 9-12, 17 and 18 under 35 USC §103(a) as being unpatentable over O'Brien et al. or Baldo et al., either reference in view of Salbeck et al. in view of Grushin et al. and Kreuder et al. (US6329082). This rejection is also respectfully traversed.

For substantially the same reasons as explained above for Claims 5-8, 15 and 16, Claims 9-12, 17 and 18 are patentable over the cited references. Accordingly, it is respectfully requested that this rejection be withdrawn.

New Claims

Applicants are also adding new dependent Claims 19-34. As these are dependent claims, they are allowable for at least the reasons discussed above for the independent claims. Accordingly, it is respectfully requested that these new claims be entered and allowed.

If a fee should be due for these new claims, please charge our deposit account 50/1039.

Conclusion

It is respectfully submitted that the present application is in a condition for allowance and should be allowed.

If any fee should be due for this amendment, please charge our deposit account 50/1039.

Favorable reconsideration is earnestly solicited.

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Respectfully submitted,

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